

**REMARKS**

Upon entry of the present amendment, claims 3 and 7 will have been amended to clarify the features of the present invention while new claims 12 through 21 will have been submitted for consideration by the Examiner. The present amendment is being filed concurrently with the filing of a Request for Continued Examination (RCE) and thus entry of the present amendment is appropriate and proper.

In view of the herein contained amendments and remarks, Applicants respectfully request reconsideration and withdrawal of the outstanding rejection together with an indication of the allowability of all the claims pending in the present application, in due course. Such action is now believed to be appropriate and proper and is thus respectfully requested.

In the outstanding Official Action of September 17, 2008, the Examiner rejected claims 3, 4, 7, and 8 under 35 U.S.C. § 102(e) as being anticipated by WARKE (U.S. Patent No. 6, 566, 889). Applicants respectfully traverse the above noted rejection and submit that it is inappropriate with respect to the claims in the present application.

In this regard, Applicants restate the arguments set forth in the response under 37 C.F.R. § 1.116 filed in the present application on December 17, 2008. The Examiner's comments, contained in the Advisory Action mailed on January 30, 2009, with respect to such arguments are noted. However, Applicants reassert that the reference relied upon merely discloses a modem with a built-in transmission line diagnostic capability. WARKE does not deal with data communication as that term is ordinarily understood. In particular, and as set forth at column 5, line 17, WARKE utilizes a test signal which is utilized to determine a length of a transmission line and to detect the presence of any bridge taps on the line so that it can be determined whether or not a high-speed connection can be established, based on whether the line length is within the

allowable limits. In this regard the Examiner's attention is respectfully directed to column 1, lines 60 through 65. In contrast, the present invention is directed to dynamically concentrating signal energy into a low-frequency band of a data communication band during a data transmitting communication in accordance with an estimated communication distance.

By the present response, Applicants have amended each of independent claims 3 and 7 to emphasize that the transmission and reception of the REVERB signal occurs during an initialization sequence portion of a communication while the concentration of signal energy occurs during a data transmission that occurs during the communication subsequent to the initialization sequence portion. Such amendments do not narrow the scope of the claims but merely emphasize features by which the present invention further distinguishes over the prior art of record herein. Thus, no prosecution history estoppel should attach to the amendment of claims 3 and 7.

In the above noted Advisory Action, the Examiner asserted that the lower frequencies of figure 5 (of WARKE) and the differing transmission line lengths and their signal responses read upon the recited communication unit. Applicant respectfully submits that the Examiner is incorrect. Figure 5 is merely a display of measured transmission line channel responses as a function of frequency for bridge tap free transmission lines of various lengths. Figure 5 is unrelated to concentrating signal energy into a low-frequency band according to the communication distance estimated by an estimation unit.

In the above noted Advisory Action, the Examiner indicated his belief that figure 5 of WARKE shows similarities to figure 12 of "the claimed invention". Applicants respectfully submit that the Examiner's incorrect. If there is any similarity between figure 5 of WARKE and any portion of the present application, figure 5 of WARKE appears to be somewhat similar to

figure 5 of the present application. In this regard, Applicants note that figure 5 illustrates an amplitude spectrum of the REVERB signal when a communication distance is changed but contains no disclosure regarding the concentration of signal energy into a low-frequency band.

In this regard, figure 12 of the disclosure of the present application shows that signal energy A for a communication distance of 1 km is not concentrated, since the signal energy attenuation is small for such a relatively short communication distance. In contrast, signal energies B and C can clearly be seen to be concentrated towards the low-frequency portion of the horizontal axis since the signal energy attenuation becomes larger due to the relatively longer communication distances for these plots. In this regard, since the communication distance of plot C is 9 km, the signal energy thereof is more concentrated into the low-frequency band than for the signal energy of plot B, for which the communication distance is 5 km. Such concentration of signal energy is not disclosed by the WARKE reference relied upon.

Accordingly, it is respectfully submitted that the Examiner's rejection is inappropriate and should be withdrawn.

By the present response Applicants have submitted a number of additional dependent claims for consideration by the Examiner in charge of the present application. Each of these claims recite features of the present invention that are fully and adequately disclosed in the original specification and are not taught, disclosed, suggested or rendered obvious by the WARKE reference relied upon in the outstanding rejection. Each of these claims is being submitted in order to afford Applicants the scope of protection to which they are entitled for their disclosed invention.

Accordingly, Applicants respectfully request reconsideration and withdrawal of the outstanding rejection, consideration of the newly submitted claims, and an indication of the allowability of all of the claims pending in the present application.

### **SUMMARY AND CONCLUSION**


Applicants have made a sincere effort to place the present application in condition for allowance and believe that they have now done so. Applicants have amended the independent claims to clarify the recitations thereof but without narrowing the scope of the claims. Applicants have additionally submitted a number of new claims for consideration by the Examiner.

Additionally, Applicants have traversed the Examiner's rejection and have shown that the disclosure of the reference relied upon is inadequate and insufficient with respect to the combinations of features recited in Applicants' claims. Applicants have discussed the recited features of the present invention, as embodied in the claims, and with respect to such combination of features have noted the shortcomings and deficiencies of the reference relied upon by the Examiner. Accordingly, Applicants have provided a clear evidentiary basis supporting the patentability of all of the claims pending in the application and respectfully request an indication to such effect, in due course.

Any amendments to the claims which have been made in this amendment, and which have not been specifically noted to overcome a rejection based upon the prior art, should be considered to have been made for a purpose unrelated to patentability, and no estoppel should be deemed to attach thereto.

Should the Examiner have any questions or comments regarding this Response, or the present application, the Examiner is invited to contact the undersigned at the below-listed telephone number.

Respectfully Submitted,  
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